



ABSTRACT OF THE DISCLOSURE

5 A method and device are provided for directing  
laser radiation in a conical beam to a tissue site to be  
irradiated. The conical beam can be positioned to  
impinge upon the tissue in a circular, elliptical, or  
any other pattern that can be generated by a conical  
section interacting with a planar or curved surface. In  
one form the contemplated device includes an optical  
10 fiber and a lens that focuses a laser beam at an oblique  
angle on the proximal end surface of the optical fiber  
so as to emit from the distal end of the optical fiber a  
laser beam having a conical configuration. In another  
form, the contemplated device includes an optical fiber  
15 having a conical distal end and a lens that focuses a  
laser beam on the proximal end surface of the optical  
fiber along the longitudinal axis of the fiber.

20 The conical laser beam can be used to  
irradiate or sculpt tissue such as the cornea of an eye  
to change the refractive characteristic thereof.